Disinfection and sterilising of objects, liquids or air - consists of ultraviolet irradiation for strong pulsed arc discharging in vacuum and in gas

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Patent Family

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Abstract:
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The process comprises exposure to ultraviolet radiation at not over 300 nm wavelength. The treatment is based on continuous spectrum radiation with a pulse duration not exceeding 5 x 10 power(-4) sec. and a power density of not less than 100 kW/m2.

ADVANTAGE - The threshold energy doseis decreased.

In an example, powerful pulsed arc discharges in vacuum and in gases can be applied. In the case of Bac. antracoidis with 2 x 10 power(7) spores per cm2 on a painted wooden surface, a pulsed xenon lamp of 3.5 kJ discharge energy gives 0.067 Hz pulsing. The 100 kW/m2 power density and the 5 x 10 power(-4) sec. pulses provide 100% decontamination at a sum power dose of 3000 J/m2. Bul.39-40/30.10.93

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